

IN THE DRAWING:

If the Examiner does not object, please replace Figures 1 and 2 of the Drawing with the new formal versions of Figures 1 and 2 attached herewith, each marked "Replacement Sheet". No new matter has been entered, and the drawings are believed to be in allowable condition.

REMARKS

This Amendment is filed in response to the Office Action dated May 1, 2007. All objections and rejections are respectfully traversed.

Claims 1, 3-5, 7-15, and 17-23 are in the case.

Claims 1, 3, 4-5, 7-9, 12, 14-15, and 17-19 have been amended to better claim the invention.

Claims 21-23 have been added to better claim the invention.

Claims 2, 6, and 16 have been cancelled without prejudice.

Petition to Revive

As stated in the attached Petition to Revive under 37 C.F.R. §1.137(b), the present application was unintentionally abandoned for failure to respond to the Office Action dated May 1, 2007. The entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 C.F.R. §1.137(b) was unintentional. Specifically, as discussed with the Examiner in a telephone interview prior to issuance of the Notice of Abandonment mailed on November 14, 2007, Applicant's undersigned attorney never received the Office Action mailed on May 1, 2007. Applicant only became aware of the Office Action of May 1, 2007 after a telephone interview in a related matter.

Requests for Examiner

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant's undersigned attorney may be reached at 617-951-2500.

Also, the Applicant respectfully requests that the Examiner please correct the

Attorney Docket Number associated with the present invention to reflect the correct docket number, if the Examiner is able to do so. The correct number is “STL11733” (as indicated in the header of this response) and not “STL11732”.

Information Disclosure Statement

Applicant respectfully attaches to this Amendment copies of the foreign cited art not previously considered by the Examiner.

Objections to Drawings

On page 2 of the Office Action, the Examiner objected to the Drawings. The Drawings have been amended with care to ensure that no new matter has been entered, and the Drawings are believed to be in allowable condition.

Provisional Double Patenting Rejection

On page 4 of the Office Action, the Examiner provisionally rejected claims 1-20 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending U.S. Application Serial No. 10/799,231, filed on even date as the present application. Applicant has filed herewith a timely filed terminal disclaimer in compliance with 37 C.F.R. §1.321(c) to overcome the provisional double patenting rejection should the conflicting claims be patented. Claims 1-20 are therefore believed to be in condition for allowance.

Claim Rejections - 35 U.S.C. §112

On page 5 of the Office Action, the Examiner rejected claims 12 and 14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Claims 12 and 14 have been amended, and are believed to be in condition for allowance.

Allowable Subject Matter

On page 9 of the Office Action, the Examiner objected to claims 6-9 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 has been cancelled, and similar subject matter has been incorporated into independent claims 1, 12, 14, and 15. Therefore, claims 1, 12, 14, and 15, and any corresponding dependent claims are believed to be in condition for allowance.

Claim Rejections - 35 U.S.C. §102

On page 6 of the Office Action, the Examiner rejected claims 1-2, 10-11, 14-16, and 19-20 under 35 U.S.C. §102(e) as being anticipated by Lavi et al., U.S. Patent No. 6,950,977, issued on September 27, 2005, hereinafter “Lavi”. As noted above, claims 1, 14, and 15, and any corresponding dependent claims are believed to be in condition for allowance.

Applicant’s novel invention, as set forth in representative claim 19, comprises in part:

19. A method comprising:

providing a plurality of square code blocks of a turbo product code (TPC) code word of user data, the user data having a predefined user data length; and

appending cyclic redundancy check (CRC) data bits to one of the plurality of code blocks, the appended CRC data bits extending a length of the code word beyond the user data length to an extended length.

Lavi discloses a mechanism for turbo-decoding when a cyclic redundancy check (CRC) for partial blocks is provided. In particular, Lavi describes a turbo-decoder and process that performs multiple turbo-decoding iterations based on reliability information

(extrinsic data) to determine whether a turbo code block has been decoded properly. For instance, Lavi specifically teaches a technique that may be applied if a single turbo code block is divided into a plurality of code words, each code word having its own CRC check. This specific technique provides for a CRC check of each individual code word, such that in the event a code word passes the CRC check, subsequent iterations may presume that the data within the passed code word is substantially correct (i.e., have high reliability or “saturated extrinsic data”). In particular, Lavi describes in Fig. 3 (column 3, lines 28-30) that a single Turbo-decoder block may have CRC units, each having a data block terminated by a CRC trailer.

Applicant respectfully urges that Lavi does not show Applicant’s claimed novel *appending cyclic redundancy check (CRC) data bits to one of the plurality of code blocks, the appended CRC data bits extending a length of the code word beyond the user data length to an extended length.*

Applicant claims a technique for appending CRC data bits to code blocks of a turbo product code (TPC) code word. Specifically, as stated in Applicant’ Specification at page 6, lines 24-26, “[u]sing the proposed methodology, the [CRC] data bits are appended to the user data, instead of replacing portions of the user data as has conventionally been the case.” In this manner, user data length (size) requirements need not be compromised in order to accommodate CRC data in the TPC code word (e.g., 512 bytes), but rather the system is adjusted to operate on TPC code words longer than the user data length (e.g., greater than 512 bytes).

Lavi does not teach or show appending CRC data bits to code blocks of a TPC code word, *where the appended CRC data bits extend a length of the code word beyond the user data length.* Instead, Lavi merely discloses that Turbo-decoder blocks (code words) may have “CRC units,” each having a data block terminated by a CRC trailer.

Applicant respectfully contends that Lavi's mention of CRC trailers to data blocks in no way discloses extending the length of the code word beyond a user data length, but may simply be the conventional case referenced by Applicant above, where portions of the user data blocks are replaced by the CRC trailer.

Applicant respectfully urges that the Lavi patent is legally precluded from anticipating the claimed invention as represented by claim 19 under 35 U.S.C. §102 because of the absence from the Lavi patent of Applicant's claimed novel *appending cyclic redundancy check (CRC) data bits to one of the plurality of code blocks, the appended CRC data bits extending a length of the code word beyond the user data length to an extended length.*

Claim Rejections - 35 U.S.C. §103

On page 8 of the Office Action, the Examiner rejected claims 3-5, 12-13, and 17-18 under 35 U.S.C. §103(a) as being unpatentable over Lavi in further view of Applicant's Admitted Prior Art, hereinafter "AAPA". Claim 12 is believed to be in condition for allowance for the reasons mentioned above with regard to allowable subject matter. Further, claims 3-5, 13, and 17-18 are dependent claims which are believed to be dependent from allowable independent claims for the reasons described above, and therefore in condition for allowance.

Conclusion

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

PATENTS
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Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,

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